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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/700,747
Filing Date: November 20, 2000
Appellant(s): NASLI-BAKIR ET AL.

Willem F. C. de Weerd
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 19 June 2009 appealing from the Office action mailed 14 August 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 2,015,806 A	MENGER	10-1935
EP 0 016 740 A1	PERCIWALL	10-1980
JP 61-040137	TOSHIO et al.	2-1986

EP 0 207 024 A2	ANDERSSON	12-1986
WO 89/05221 A1	LEHNERT	6-1989
US 6,734,275 B2	PIRHONEN et al.	5-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 39, 41-45, 56-59, 70-76, 78-82, 84-87, 89-93, 95, and 98, are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson (EP 0 207 024 A2) in view of Lehnert (WO 89/05221 A1).

Andersson teaches a method of applying a two-component gluing system to a substrate in which the resin component and the hardener component are separately applied to the substrate in the form of separate, parallel strands [abstract]. The components are applied through a nozzle (i.e., orifice) [p. 6, ll. 9-17]. The two components do not contact each other until the substrate surfaces are joined together. A laminated wood product is produced (i.e., a gluelam or laminated timber).

Andersson does not teach that the gluing system is an amino resin gluing system or feeding the amino resin and hardener components to at least first and second orifices, respectively. The gluing system of Andersson is a formaldehyde-based adhesive, preferably resorcinol-formaldehyde or resorcinol-phenolformaldehyde [p. 2, ll. 5-11]. Lehnert teaches the equivalence of phenol and amino resins as conventional two-component adhesives in the art of joining wooden surfaces to form laminates, including condensation products of formaldehyde and urea and/or melamine [p. 1, ll. 28-31 and p.

3, l. 37-p.4, l. 9]. Lehnert also gives, as examples of acid hardeners: phosphoric acid, trichloroacetic acid, citric acid, and maleic acid. It is the Examiner's position that these acids are "volatile acids" according to Appellant's definition at the bottom of p. 3 of the instant specification. Phosphoric acid, for instance, has a vapor pressure of 0.03 mmHg at 20°C. Based on this teaching of equivalence, it would have been obvious to one of ordinary skill in the art to modify the process of Andersson by substituting, as the gluing system, the amino resin gluing system of Lehnert. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully joining wooden surfaces to form a laminate.

Lehnert is silent with respect to whether or not the hardener component includes a filler. Based on this fact, it is the Examiner's position that one of ordinary skill in the art would have reasonably interpreted the hardener of Lehnert as free from filler. Please note: a filler amount of less than a certain % by weight is inclusive of no filler at all.

Although Andersson teaches application of the components from a nozzle, the reference does not specify whether it is the same nozzle or two separate, discrete nozzles. Anderson teaches that pre-curing is undesirable because it necessitates frequent cleaning of the application apparatus [p. 1]. Based on this teaching, it would have been obvious to one of ordinary skill in the art to apply each component from its own, individual, dedicated nozzle, so as to avoid fouling of the nozzle that would require cleaning.

Lehnert is silent with respect to whether or not the hardener component includes a thickener. Nevertheless, it is common and conventional in the art to add thickeners to components of coating compositions in order to control the viscosity thereof.

It is clear that, as soon as the components are mixed, curing begins. The particular physical orientation of the strands on the substrate affect the speed and degree of curing ; such would have been readily apparent to one of ordinary skill in the art. Consequently, absent clear and convincing evidence to the contrary, it would have been obvious to select the orientation of resin and hardener strands to give the desired curing rate and substrate coverage. In other words, for a quicker cure, strands are applied with a greater degree of overlap so that curing may begin before the substrates are joined. For a longer cure, strands are applied with a lesser degree of overlap.

Claims 46, 83, 88, 96, and 97, are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Lehnert, as applied to claims 49, 80, and 87, respectively, above, in further view of Perciwall (EP 0 016 740 A1).

The combined teaching of Andersson and Lehnert is detailed above. Neither of these references teaches that the hardener comprises formic acid in an amount of 10-30% by weight, although Lehnert does teach: "When the adhesive is an amino resin the hardener can for example be an inorganic or organic acid, such as phosphoric acid, trichloroacetic acid, citric acid or maleic acid" [p. 4, ll. 21-24]. Perciwall teaches the equivalency of formic acid with phosphoric, trichloroacetic, citric, and maleic acid as a hardener for amino resin systems [p. 4, l. 37-p.5, l. 2]. Consequently, it would have been

obvious to one of ordinary skill in the art to modify the process of Andersson in view of Lehnert so as to utilize, as the hardener composition, a composition comprising formic acid, as suggested by Perciwall. One of ordinary skill would have been motivated to do so by the desire and expectation of successfully curing the amino resin.

Further, Perciwall is silent with respect to the amount of this volatile acid present in the hardener composition. Generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. See MPEP 2144.05(II)(A). Further, it is the Examiner's position that the amount of volatile acid in the hardener composition will affect the setting time of the resin component, and will depend on other components present in the hardener composition, as well as the nature of the substrate to which the composition is applied. Volatile acid concentration is, therefore, result-effective variable. Absent clear and convincing evidence of unexpected results demonstrating the criticality of the claimed volatile acid concentration, it would have been obvious to one of ordinary skill in the art to optimize such a result-effective variable by routine experimentation. See MPEP 2144.05(II)(B).

Finally, with respect to the claimed ratio of resin to hardener, differences in concentration will generally not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such subject matter is critical. Further, the ratio of hardener to resin is a result-effective variable affecting the rate and degree of hardening. As such, it would have been obvious to one skilled in the art to

optimize this result-effective variable by routine experimentation, absent evidence of criticality. See MPEP 2144.05(II)(B).

Claims 40 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Lehnert, as applied to claims 39 and 76, respectively, above, and further in view of Menger (US 2,015,806 A).

The combined teaching of Andersson and Lehnert re: claims 39 and 76 is detailed above. Neither of these references teach that the resin component is applied in the form of strands and, thereafter, the hardener is applied by means of spraying. Menger teaches a process for the adhesive joining of wood in which a resin and hardener are separately applied, the hardener applied by spraying [c. 2, ll. 32-37]. It would have been obvious to one of ordinary skill in the art to modify the process of Andersson in view of Lehnert so as to apply the hardener by spraying, as taught by Menger. One of ordinary skill would have been motivated to do so by the desire and expectation of successfully applying the hardener to the resin-coated substrate.

Claims 60-64 and 66-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Lehnert and Toshio (JP 61-040137).

The combined teachings of Andersson and Lehnert is detailed above. Neither of these references teaches that the resin and hardener components are discharged from different hollow members each having a plurality of orifices, the orifices of one of said hollow members being either aligned in, or parallel displaced in, a machine direction in

relation to the corresponding orifices of the other of said hollow member. Toshio teaches a process for the manufacture of a laminate in which the components are applied in strands from hollow members each having a plurality of orifices, the orifices being aligned in, or parallel displaced in, a machine direction in relation to the corresponding orifices of the other said hollow member [abstract and Fig. 1]. It would have been obvious to one skilled in the art to one of ordinary skill in the art to modify the process of Andersson in view of Lehnert so as to utilize the hollow application members of Toshio. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully applying the components of the resin to the substrate.

Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Lehnert and Toshio, as applied to claim 60 above, and further in view of Perciwall.

The combined teaching of Andersson, Lehnert, and Toshio is detailed above. None of these references teaches that the hardener comprises formic acid in an amount of 10 – 30% by weight, although Lehnert does teach: “When the adhesive is an amino resin the hardener can for example be an inorganic or organic acid, such as phosphoric acid, trichloroacetic acid, citric acid or maleic acid” [p. 4, ll. 21 – 24].

Perciwall teaches the equivalency of formic acid with phosphoric, trichloroacetic, citric, and maleic acid as a hardener for amino resin systems [p. 4, l. 37 – p. 5, l. 2]. Consequently, it would have been obvious to one of ordinary skill in the art to modify the

process of Andersson in view of Lehnert and Toshio so as to utilize, as the hardener composition, a composition comprising formic acid, as suggested by Perciwall. One of ordinary skill would have been motivated to do so by the desire and expectation of successfully curing the amino resin.

Additionally, Perciwall is silent as to the amount of volatile acid present in the hardener composition. Generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical [MPEP § 2144.05(II)(A)]. Further, it is the examiner's position that the amount of volatile acid in the hardener composition will effect the setting time of the resin component, and will depend on other components present in the hardener composition, as well as the nature of the substrate to which the composition is applied. Volatile acid concentration is, therefore, a result-effective variable. Absent clear and convincing evidence of unexpected results demonstrating the criticality of the claimed volatile acid concentration, it would have been obvious to one of ordinary skill in the art to optimize such a result effective variable by routine experimentation [MPEP § 2144.05(II)(B)].

Claim 94 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Lehnert and Perciwall.

The teaching of Andersson is described above and incorporated herein. The gluing system of Andersson is a formaldehyde-based adhesive, preferably resorcinol-

formaldehyde or resorcinol-phenolformaldehyde [p.2, ll. 5-11]. This reference does not teach that the gluing system is an amino resin gluing system.

Lehnert teaches the equivalence of phenol and amino resins as conventional two-component adhesives in the art of joining wooden surfaces to form laminates, including condensation products of formaldehyde and urea and/or melamine [p. 1, ll. 28-31 and p. 3, ll. 37-4:9].

Based on this teaching of equivalence, it would have been obvious to one of ordinary skill in the art to modify the process of Andersson by substituting, as the gluing system, the amino resin gluing system of Lehnert. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully joining wooden surfaces to form a laminate.

Lehnert is silent with respect to whether or not the hardener component includes a filler. Based on this fact, it is the examiner's position that one of ordinary skill in the art would have reasonably interpreted the hardener of Lehnert as free from filler. Please note: a filler amount of less than a certain % by weight is inclusive of no filler at all.

Further, it is clear that, as soon as the components are mixed, curing begins. The particular physical orientation of the strands on the substrate effect the speed and degree of curing; such would have been readily apparent to one of ordinary skill in the art. Consequently, absent clear and convincing evidence to the contrary, it would have been obvious to select the orientation of resin and hardener strands to give the desired curing rate and substrate coverage. In other words, for a quicker cure, strands are

applied with a greater degree of overlap so that curing may begin before the substrates are joined.

Neither of these references teaches that the hardener comprises formic acid in an amount of 10 – 30% by weight, although Lehnert does teach: “When the adhesive is an amino resin the hardener can for example be an inorganic or organic acid, such as phosphoric acid, trichloroacetic acid, citric acid or maleic acid” [p. 4, ll. 21 – 24].

Perciwall teaches the equivalency of formic acid with phosphoric, trichloroacetic, citric, and maleic acid as a hardener for amino resin systems [p. 4, l. 37 – p. 5, l. 2]. Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of Andersson in view of Lehnert so as to utilize, as the hardener composition, a composition comprising formic acid, as suggested by Perciwall. One of ordinary skill would have been motivated to do so by the desire and expectation of successfully curing the amino resin.

Further, Perciwall is silent as to the amount of volatile acid present in the hardener composition. Generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical [MPEP § 2144.05(II)(A)]. Further, it is the examiner’s position that the amount of volatile acid in the hardener composition will effect the setting time of the resin component, and will depend on other components present in the hardener composition, as well as the nature of the substrate to which the composition is applied. Volatile acid concentration is, therefore, a result-effective variable. Absent clear and convincing evidence of unexpected results demonstrating

the criticality of the claimed volatile acid concentration, it would have been obvious to one of ordinary skill in the art to optimize such a result effective variable by routine experimentation [MPEP § 2144.05(II)(B)].

Claims 70 and 76 are each rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 9, and 18 of U.S. Patent No. 6,734,275 B2 in view of Andersson (EP 0 207 024 A2).

Claim 70

> 70. A method of separate application of resin and hardener components of an amino resin gluing system onto a substrate of a gluelam or laminated timber, in the form of strands, wherein the hardener comprises a volatile acid and is either free from filler or comprises filler in an amount of less than 20% by weight, wherein the amino resin is selected from the group consisting of melamine-formaldehyde and melamine-urea-formaldehyde, and wherein the strands of resin and the strands of hardener do not overlap.

The patented claims generally recite a method of separate application of resin and hardener components of an amino resin gluing system onto a wooden substrate, wherein the hardener comprises an acid. The patented claims are silent with respect to the presence of filler, which the examiner interprets as a fair teaching that the hardener of the patented claims do not comprise any filler. (Please note that the patented specification states: "The hardener composition may, optionally, comprise fillers, thickeners or other additives" [col. 4, ll. 39-41].) This is a clear teaching that the hardener may, optionally, contain no filler.

Patented claims 1 and 18 differ from instant claim 70 in that the patented claims do not explicitly state that: (i) the substrate is not explicitly defined as a gluelam or laminated timber; (ii) the amino resin is selected from the group consisting of melamine-

formaldehyde and melamine-urea-formaldehyde; (iii) the acid is not explicitly defined as "volatile;" and (iv) the resins and hardener are applied as strands of hardener that do not overlap.

> 1. A method of gluing wood based materials by providing a first and second component of an adhesive system, applying the two components mixed or separately onto wood based materials followed by curing, the first component is a urea based amino resin and the second component is a hardener composition, wherein the hardener composition comprises an acid, and a phenolic resin which is a resorcinol resin or a tannin resin, or a mixture thereof.
>
> 18. A method of gluing wood based materials by providing a first and second component of an adhesive system onto wood based materials followed by curing, the first compronent is a urea based amino resin and the second component is a hardener composition, wherein the hardener composition comprises an acid, and a phenolic resin, the adhesive system is provided by separately applying the amino resin and the hardener composition onto the wood based materials.

With respect to (i), the patented specification explicitly discloses, as examples of the wood based materials, a laminated beam [col. 2, ll. 24-25]. It would have been obvious to one of ordinary skill in the art to modify the method of patented claims 1 and 18 so as to use, as the substrate, the explicitly disclosed laminated beam. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of providing a suitable wood based material.

With respect to claim (ii), the patented specification explicitly discloses, as examples of the resin, melamine-urea-formaldehyde (MUF) resin [col. 2, ll. 59+]. It would have been obvious to one of ordinary skill in the art to modify the method of patented claims 1 and 18 so as to use, as the urea resin, the explicitly disclosed MUF.

One of ordinary skill in the art would have been motivated to do so by the desire and expectation of providing a suitable wood gluing material.

With respect to (iii), the patented specification explicitly discloses, as examples of the acid, acetic and hydrochloric [col. 4, ll. 1-27]. The instant specification gives these acids as examples of suitable “volatile” acids [col. 4, top]. It would have been obvious to one of ordinary skill in the art to modify the method of patented claims 1 and 18 so as to utilize, as the acid, the explicitly disclosed acetic or hydrochloric volatile acids. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of providing a suitable acid for the hardener component.

With respect to (iv), Andersson teaches a method of applying a two-component gluing system to a substrate in which the resin component and the hardener component are separately applied to the substrate in the form of separate, parallel strands [abstract]. The components do not contact each other until the surfaces are joined together [p. 6, ll. 15-17]. It would have been obvious to one of ordinary skill in the art to modify the method of instant claims 1 and 18 so as to apply the components in the form of separate, parallel strands, as taught by Andersson. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of preventing pre-curing of the adhesive to the greatest extent possible.

9. A method of gluing wood based materials by providing an adhesive system onto wood based materials followed by curing, the adhesive system comprising a urea based amino resin and a hardener composition, wherein the hardener composition comprises an acid, and a phenolic resin, the molar ratio aldehyde to amino compound used when making the urea based amino resin is less than 2.4.

Patented claim 9 additionally differs from instant claim 70 in that the patented claim does not teach that the resin and hardener components are applied separately.

Again, as noted above, it would have been obvious to one of ordinary skill in the art to keep the resin and hardener component separate for as long as possible in order to prevent premature curing.

Claim 76

> 76. A method of separate application of resin and hardener components of an amino resin gluing system onto a substrate of a gluelam or laminated timber, wherein the hardener comprises a volatile acid and a thickener, and is either free from filler or comprises filler in an amount of less than 20% by weight, wherein the amino resin is selected from the group consisting of melamine-formaldehyde and melamine-urea-formaldehyde, and wherein the components of the gluing system are applied in the form of strands in optional order of application.

The teaching of the patented claims is detailed above and items (i)-(iv) would have been obvious with respect to claim 76 as detailed above. Further, as noted above, the hardener composition may, optionally, comprise fillers, thickeners or other additives" [c. 4, ll. 39-41]. This is a clear teaching that the hardener may, optionally, contain a thickener. The patented claims additionally differ from instant claim 76 in that the patented claims do not expressly recite that the strands are formed in optional order of application. It is the Examiner's position that, in a process in which application in the form of strands would have been obvious (item iv above), there are only two possibilities for separate application: resin first, hardener second; and *vice versa*. Since both result

in application to the substrate they appear to be functionally equivalent, yielding exactly the same result and either would have been obvious.

Claim 94 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 9, and 18 of U.S. Patent No. 6,734,275 B2 in view of Perciwall (EP 0 016 740 A1) and Andersson (EP 0 207 024 A2).

> 94. A method of separate application of resin and hardener components of an amino resin gluing system onto a substrate of a gluelam or laminated timber, in the form of strands, wherein the hardener comprises a volatile acid and a thickener, wherein the amino resin is selected from the group consisting of melamine-formaldehyde and melamine-urea-formaldehyde, wherein the later applied strands of one component substantially overlap the corresponding previously applied strands of the other component, wherein the hardener component is applied on top of the resin component, wherein the volatile component of said hardener comprises formic acid in an amount of 10-30% by weight, and wherein the hardener is free from filler.

The patented claims generally recite a method of separate application of resin and hardener components of an amino resin gluing system onto a wooden substrate, wherein the hardener comprises an acid. The patented claims are silent with respect to the presence of filler, which the examiner interprets as a fair teaching that the hardener of the patented claims do not comprise any filler. (Please note that the patented specification states: “The hardener composition may, optionally, comprise fillers, thickeners or other additives” [col. 4, ll. 39-41].) This is a clear teaching that the hardener may, optionally, contain no filler.

Patented claims 1 and 18 differ from instant claim 94 in that the patented claims do not explicitly state that: (i) the substrate is not explicitly defined as a gluelam or laminated timber; (ii) the amino resin is selected from the group consisting of melamine-formaldehyde and melamine-urea-formaldehyde; (iii) the acid is not explicitly defined as "volatile;" (iv) the resins and hardener are applied as strands wherein the later applied strands of one component substantially overlap the corresponding previously applied strands of the other component; and (v) wherein the acid is formic acid present in an amount of 10-30% by weight.

With respect to (i), the patented specification explicitly discloses, as examples of the wood based materials, a laminated beam [col. 2, ll. 24-25]. It would have been obvious to one of ordinary skill in the art to modify the method of patented claims 1 and 18 so as to use, as the substrate, the explicitly disclosed laminated beam. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of providing a suitable wood based material.

With respect to claim (ii), the patented specification explicitly discloses, as examples of the resin, melamine-urea-formaldehyde (MUF) resin [col. 2, ll. 59+]. It would have been obvious to one of ordinary skill in the art to modify the method of patented claims 1 and 18 so as to use, as the urea resin, the explicitly disclosed MUF. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of providing a suitable wood gluing material.

With respect to (iii) and (v), the patented specification explicitly discloses, as examples of the acid, up to 50 wt.-% formic acid [col. 4, ll. 1-27]. The instant

specification gives these acids as examples of suitable “volatile” acids [p. 4, top]. It would have been obvious to one of ordinary skill in the art to modify the method of patented claims 1 and 18 so as to utilize, as the acid, the explicitly disclosed formic acid. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of providing a suitable acid for the hardener component.

With respect to (iv), Andersson teaches a method of applying a two-component gluing system to a substrate in which the resin component and the hardener component are separately applied to the substrate in the form of strands [abstract]. It would have been obvious to one of ordinary skill in the art to modify the method of instant claims 1 and 18 so as to apply the components in the form of strands, as taught by Andersson. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully applying the resin and hardener. It is clear that, as soon as the components are mixed, curing begins. The particular physical orientation of the strands on the substrate affect the speed and degree of curing; such would have been readily apparent to one of ordinary skill in the art. Consequently, absent clear and convincing evidence to the contrary, it would have been obvious to select the orientation of resin and hardener strands to give the desired curing rate and substrate coverage. In other words, for a quicker cure, strands are applied with a greater degree of overlap so that curing may begin before the substrates are joined. For a longer cure, strands are applied with a lesser degree of overlap.

(10) Response to Argument

Appellant's arguments filed in the brief have been fully considered but they are not persuasive. Appellant traverses both the prior art rejections and the obviousness-type double patenting rejections on the same grounds.

The Examiner acknowledges that the body of the Andersson reference concerns a particular phenolic resin formulation. Nevertheless, the broader teaching of Andersson — that it is well known in the art to join wood substrates by separate application of resin and hardener strands [p.1, ll. 4-21] — is not limited to any particular resin system. While it makes common sense that a given resin system must be formulated so as to optimally function with a given application system, the fact that Andersson chooses to discuss a phenolic resin system in no way suggests that the well known method of application of resin and hardener in separate strands functions *only* for phenolic resins. Appellant is reminded that a patent is part of the literature of the art, relevant for all it contains, and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments. See MPEP 2123(I). Further, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. See MPEP 2123(II).

Appellant argues that the cited prior art does not demonstrate the equivalence of phenolic and amino resins for joining wood substrates in the conventional manner disclosed by Andersson. The Examiner disagrees. The fundamental level of inquiry rests at *functional equivalency* not compositional sameness. See MPEP 2144.06. Specifically, Appellant argues that, because phenolic and amino resins systems are not

compositionally identical, they are not equivalent: "If phenol and amino resins were ‘equivalent’ or ‘essentially equal,’ they would not employ totally different chemistries, requiring hardeners with diametrically opposing properties, viz., acidic vs. basic" [brief, p. 10]. In other words, Appellant argues that, because the compositions are not identical, they cannot render the claim obvious by virtue of their equivalency. This argument is flawed: it is essentially stating that, since the claims are not anticipated, they cannot be obvious. As such, it is not persuasive and it remains the Examiner's position that the disclosure of Lehnert clearly teaches that amino resin systems and phenolic resin systems are *functionally equivalent* to join wood. Further, the Examiner notes that obviousness need not be based only on functional equivalency. Rather, materials may be selected based upon their art-recognized suitability for the intended purpose. It is clear from the cited references that both phenolic and amino systems are suitable to join wood.

Appellant further argues that replacing the phenolic resin system of Andersson with an amino resin system would destroy the reference’s intended function. The Examiner disagrees. Andersson’s intended function is adhesively joining two pieces of wood, not selecting the pH of the hardener. It is clear that substitution of one resin system for another would inherently require associated changes in hardener, but would not change the overall process steps of application in strand-form by an applicator followed by joining. Since it is clear from Andersson in view of Lehnert that either system would successfully join wood, the reference's intended function is retained, not destroyed. As such, this argument is not persuasive.

Appellant argues that Example I provides evidence of unexpected results. As noted in the Interview Summary (10/13/2005), the burden is on Appellant to establish unexpected results. Unexpected results must be commensurate in scope with the claimed invention. See MPEP 716.02(d). Example I shows results for a specific amino resin compound, melamine-urea-formaldehyde, while all independent claims but claim 98 recite melamine-formaldehyde *or* melamine-urea-formaldehyde, and claim 98 broadly recites an "amino resin gluing system." Clearly the two are not commensurate in scope. A proper showing must be made before the showing can be weighed against the *prima facie* case of record and the criteria of a proper showing, as established by the Office, cannot be used as rationale for why any showing need not be made or why the claims are non-obvious absent a showing.

With respect to Appellant's vague arguments vis-à-vis the combination with Toshio, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/William Phillip Fletcher III/
Primary Examiner, Art Unit 1792

Conferees:

/Timothy H Meeks/

Supervisory Patent Examiner, Art Unit 1792

/Benjamin L. Utech/

Primary Examiner